#### Exhibit 34

#### MATERIAL ANALYZED: Peek Tubing Samples For Study of Different Air Gaps Used During Extrusion

DSC Scanning Rate: 20°C/Minute

Temp 1 : 25°C Temp 2 : 375°C

Temp 2 : 375°C				EXOTHER	M CRYST.	MELTING	PEAK	ΣΔΗ
	Sample	Wt	Tg	Tcc	ΔHcc	Tm	ΔH	(AH-AHcc)
MATERIAL ANALYZED	No.	mg	℃	℃	J/G	တ	J/G	J/g
1. Air Gap =0.3 inch								
	A	4.34	145.1	173.70	25.51	338.20	38.40	12.89
	В	4.48	145.6	173.70	24.80	338.40	37.60	12.80
Average		4.41	145.35	173.70	25.16	338.30	38.00	12.85
2. Air Gap =1.25 Inch								
,	A	4.25	146.0	175.50	25.72	337.90	39.15	13.43
	В	4.53	145.6	175.40	26.18	337.30	42.10	15.92
Average		4.39	145.80	175.45	25.95	337.60	40.63	14.68
3. Air Gap≖ 3.5 Inches								
	A	4.30	146.30	176.12	27.43	338.01	38.56	11.13
	В	4.42	145.70	176.70	26.50	338.00	38.57	12.07
Average		4.36	146.00	176.41	26.97	338.01	38.57	11.60
4. Air Gap= 17 inches		•						
	A	4.25	145.1	174.70	24.34	337.30	38.91	14.57
	В	4.41	145.3	174.60	23.90	337.60	38.20	14.30
Average		4.33	145.20	174.65	24.12	337.45	38.56	14.44
5. Air Gap= 55 inches								
	A	4.25	145.5	173.30	17.28	337.60	38.28	21.00
	В	4.37	145.4	173.30	17.10	337.30	39.34	22.24
Average		4.31	145.45	173.30	17.19	337.45	38.81	21.62

L. S. Mariano/5-23-94

195.0 lucy mariand PERKIN-ELMER 7 Series Thermal Analysis System Mon May 23 13, 25, 25 1994 165.0 3,SINCH 55 INCHES 175.0 1.25 INCH 0.3 INC Temperature (°C) 165.0 **CHYSTALLIZATION** EXOTHERMIC 10.0 c/min 1.0 min AATEL 145.0 16 Time i: 00 5.2 79.1 5.0 4.2 9 \*\* \*\* 1 (5/N) Heat Flow

Curve 1: DSC
File info: 1.25A Fri May 20 10: 46: 15 1994
Sample Weight: 4.251 mg
PEEK TUBING, AIR GAP STUDY

# [1994 shafts]peek

	peek data	_							
	ACS and Acutech shafts	ch shaft							
	rev date 5/19/94	4							
		шош	mou	water			nominal	ave dim	enthadmelof
ext no	ext date	P	ро	모	basis	density	area	area	crystallization
	[[	-	[iiii]	[] []	[mlf] wt	[6,m2/mb	[in^2] [in^2] [J/gm]	[in^2]	[J/gm]
amorphous						1.263			
seml crys		equil vol% cryst	11	0.37;	rho=1.27	for 10C/min:	rho=1.30 for	1C/min	
crystalline						1.401			
Acutech	1st samo-im	0 01	7 70				L		
	<u> </u>	5	6.62				2.2/E-04		
10-542									
10-543	3/10/94	32.0	37.0	32.39	0.7387	1.257	2.71F-04	3 04F-04	
543-rep					1	1.257			
10-544	3/10/94	18.0	23.0	17.98	0.4058	1.257	1.61E-04	1.67E-04	
544-rep						1.257			
Acutech	02-149-12	32.5	39.5	32.97	1.0366	1.268	3.96E-04	4.23E-04	20.6
Acutech-rep						1.268			
Acutech-ht	200C/30min				1.1015	1.288		4.42E-04	
10-552	3/25/94	30.0	37.0		0.6858	1-253	3 68E-04	2 83E.04	200
552 rep						4 253	10000	F:00E 01	20.0
10-553	3/25/94	30.0	38.0		0.7636	1.253	4.27F-04	3 15E-04	24.4
553-rep						4.253			
10-553ht	200C/30min				0.8320	1.280		3.36E-04	
10-554	3/25/94	33.0	39.0		0.7033	1.270	3.39E-04	2.86E-04	14.2
554rep									
10-554ht	200C/30mln				0.6889	1.289		2.76E-04	
10-581					0.7696	1.255		3.17E-04	
10-903	5/17/04	0.00	000	07	7.000	,	L		
10-901		30.00	2 0	04.60	7 7 0 0	007.	3.30E-04	2.59E-U4	
10-902		200	2 0	20.4		1,2,1	3.30E-04	3.07E-04	
10-ag4		32.0	38.0	33.12		1 285	3.30E-04	3.035-04	
10-ag5		32.0	38.0	33.60		1.300	3.30E-04	2.43E-04	
	density in strikeout = low estimate 1 purge	out = low	estimate 1	purge					
	density in Italics = estimate, not measured	= estimate	e, not mea	sured					

## [1994 shafts]peek

								_					
	extrusion co		nditions										
	dle geometry											15	nominal
ext no	9	ро	wb dist	t screw	addr	rpm	pds-d	die press set	ext amp	ext zones	die	melt	dryInd
mil mil	Ē	Ē					ft/min			In tt/min			
asirorprious													
semi crys													
crystalline													
Acutech													
10-542		58		0.4 low out		œ	40	558	7	530/600/720	700	763	300/12
10-543	72	94	0.25	cr110393-1	6	9	65	2121	9.4	•	720	784	280/48
543-rep													
10-544	72	94	1	cr110393-1	17	9	65	1943	8.9	565/670/720	720	784	280/48
544-rep													
												ľ	
Acutech													
Acutech-rep													
Acutech-ht													
40 665	7	2						-					
552 ran		o b	0.0	0.01110393-1	7	01	4	18/2	0.00	570/680/720	720	800	250/12
10-553	72	ď	9	cr110393.1	+	+	7.	1000		10000000	1		3
553-rep						2		200	0 0		000	2	71/007
10-553ht													
10-554	72	98	76	s cr110393-1	12	11	41	1803	8.6	570/680/710	710	800	250/12
554rep													
10-554ht							Ī						
10-581	72	94	0.7	7 pe4770-3	6	11	92	1391	10.1	565/670/730	730	810	320/3
10-ag3	72		0.3	3.5		4	75	2697		575/650/670	673	75.6	250/05
10-ag1		94	1.25	5 5		4		2842		575/650/670	673	756	250/96
10-ag2	72		3.5	÷ 2		4	75			575/650/670	673	i	756 250/96
10-ag4	72		17	۷ غ		4	75			575/650/670	673		250/96
10-ag5		94	55	15		4	75	2620		575/650/670	673	756	250/96

# [1994 shafts]peek

			2000				_		_	
	strain rate	e = 0.1 m				strain rate	.e = mln^-1			
	mon	ave dim	mou	ave dim			ave dim			leulmou
ext no	ΙÜ	ш	sy	sy	өу	sb/max	sb/max	eb/max	comments	
[kpsi]	[kpsi]		[kpsl]		[ln/in]	(kpsi)	000000000000000000000000000000000000000	[ln/in]	[kpsl] [In/in] [kpsi] [In/in]	
amorphous	380	380	×						_	_
semi crys	460	460								
crystalline										
Acutech	385		80		0	0		7.5		
			9.0		20.0	4.		0.71	OK 10' prox Im/om; too stiff	for distal
10-542										
10-543	415	370	8.25	7.36	0.03	19.5	17.4	1.31		
543-rep		350		7.63	0.03					
10-544	392	378	7.91	7.64	0.03	22.4	21.6	2.01	1/2 samples rt uit fx early	
544-rep		377		7.62	0.03					
Acutech	416	က	9.49	8.89	0.03	15.4	14.5	0.56	water od = 40.24	4
Acutech-rep		415		8.86	0.03					
Acutech-ht		528		12.40	0.03					
10-552	275	358	5.79	7.54	0.03	15.9	20.7	2.28	2 28 RC water cooled	
552 rep		357		7.28	0.03					
10-553	258		5.47	7.42	0.03	16.2	21.9	2.86	2.86 70C water cooled	
553-rep		373		7.48	0.03					
10-553ht		421		11.90	0.04					
10-554	339	402	7.31	8.67	0.03	18.3	21.7	2.62	air coot	
554rep		422		8.83	0.03					
10-554ht		506		11.80	0.03					
10-581		362		7.45	0.03				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
10.ad3	281	6. 2.	4	7 P.	0	4		0		
10-au1		343		7 49	0.0	0.01	0.0	0 0	L.	
10-ag2		345		7.50	0.02	<u>L</u> .		3.00	variatione in	
10-ag4		371		7.54	0.03			2.92	water bath distance	
10-ag5	300	406	6.76	9.16	0.03	17.3		2.43	тах	
	nominal values		lmou uo pa	based on nominal dimensions	S					
	ave value	s based o	in length-a	ave values based on length-averaged area from basis + density	from bas	is + dens				
				,						